

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1 (Currently Amended): A method of producing a methacrylic acid ester of an alcohol or a phenol which comprises carrying out an ester-exchange reaction between methyl methacrylate and the alcohol or the phenol while removing by-product methanol as an azeotropic mixture with methyl methacrylate from the reaction system via a distillation column under reflux conditions, by the use of a reaction apparatus equipped with the distillation column,

wherein the reaction is carried out while controlling the reflux ratio so that [[a]] the temperature of the uppermost stage in the distillation column ~~may be~~ is from 63 to 68°C, [[a]] the temperature of the middle stage in the distillation column ~~may be~~ is from 68 to 90°C, and [[a]] the temperature of the lowest stage in the distillation column ~~may be~~ is from 90 to 100°C in terms of the temperatures at normal pressure, while the conversion of the alcohol or the phenol is within the range of 10 to 90%.

Claim 2 (Currently Amended): A method of producing a methacrylic acid ester of an alcohol or a phenol which comprises carrying out an ester-exchange reaction between methyl methacrylate and the alcohol or the phenol while removing by-product methanol as an azeotropic mixture with methyl methacrylate from the reaction system via a distillation column under reflux conditions, by the use of a reaction apparatus equipped with the distillation column,

wherein the removal of the azeotropic mixture of methanol and methyl methacrylate from the reaction system is started after a temperature of the uppermost stage in the distillation column has reached from 63 to 68°C, a temperature of the middle stage in the distillation column has reached from 68 to 90°C, and a temperature of the lowest stage in the distillation column has reached from 90 to 100°C in terms of the temperatures at normal pressure; and

the reaction is carried out while controlling the reflux ratio so that the temperatures in the distillation column may be maintained within the above range, while the conversion of the alcohol or the phenol is within the range of 10 to 90%.

Claim 3 (Currently Amended): The method of producing a methacrylic acid ester according to claim 1,

wherein, after the conversion of the alcohol or the phenol has exceeded 97%, by-product methanol is completely removed as an azeotropic mixture with methyl methacrylate from the reaction system while controlling the reflux ratio so that ~~[[a]]~~ the temperature of the uppermost stage in the distillation column ~~may be~~ is 95°C or higher, and temperatures of the middle stage and the lowest stage in the distillation column ~~may be~~ are 99°C or higher in terms of the temperatures at normal pressure, and the reaction is terminated.

Claim 4 (Currently Amended): The method of producing a methacrylic acid ester according to claim 2,

wherein, after the conversion of the alcohol or the phenol has exceeded 97%, by-product methanol is completely removed as an azeotropic mixture with methyl methacrylate from the reaction system while controlling the reflux ratio so that ~~[[a]]~~ the temperature of the uppermost stage in the distillation column ~~may be~~ is 95°C or higher, and temperatures of the middle stage and the lowest stage in the distillation column ~~may be~~ are 99°C or higher in terms of the temperatures at normal pressure, and the reaction is terminated.

Claim 5 (New): The method of producing a methacrylic acid ester according to claim 1, wherein the conversion of the alcohol or the phenol is within the range of 5-95%.

Claim 6 (New): The method of producing a methacrylic acid ester according to claim 2, wherein the conversion of the alcohol or the phenol is within the range of 5-95%.

Claim 7 (New): The method of producing a methacrylic acid ester according to claim 1, wherein the conversion of the alcohol or the phenol is within the range of 4-97%.

Claim 8 (New): The method of producing a methacrylic acid ester according to claim 2, wherein the conversion of the alcohol or the phenol is within the range of 4-97%.

Claim 9 (New): The method of producing a methacrylic acid ester according to claim 1, wherein the reflux ratio is controlled within the range of 5-50.

Claim 10 (New): The method of producing a methacrylic acid ester according to claim 2, wherein the reflux ratio is controlled within the range of 5-50.